

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A method of transferring data from a distributor to a plurality of recipients comprising the steps of:

- (a) ~~broadcasting unreceived data~~ a sequential one of a plurality of packets together comprising data to be transferred to said plurality of recipients at a time when each said plurality of recipients is capable of receiving said data by point-to-point communication;
- (b) ~~repeating, without waiting for a request for unreceived data from any one or more of said plurality of recipients,~~ step (a) until a time for the completion of transferring said ~~unreceived data~~ sequential one of a plurality of packets by point-to-point communication with said recipients obtains a predetermined relationship to a time for the completion of said broadcasting, wherein each successive iteration of repeating step (a) is preceded by the steps of:
 - (i) receiving a value from at least one designated representative recipient, each representing at least one other non-representative recipient, said value indicating whether said sequential one of said plurality of packets has been received;
 - (ii) assigning said received value to all recipients respectively represented by said at least one of said designated recipients; and
 - (iii) evaluating whether said predetermined relationship has been attained based on said respective received values and said assigned values; and
- (c) ~~thereafter, without waiting for a request for unreceived data from any one or more of said plurality of recipients,~~ completing said transferring of said

~~unreceived data~~ sequential one of a plurality of packets by point-to-point communication with at least one of said plurality of recipients; and

(d) repeating steps (a) through (c) for the next sequential one of said plurality of packets until said data has been received by all recipients.

2 (currently amended). The method of claim 1 wherein the step of repeating said broadcasting of ~~unreceived data~~ until a time for transferring said ~~unreceived data~~ sequential one of a plurality of packets by point-to-point communication with said recipients obtains a predetermined relationship to a time for said broadcasting comprises the steps of:

- (a) estimating a time to transfer said ~~unreceived data~~ sequential one of a plurality of packets by point-to-point communication with said recipients, and
- (b) repeating said broadcasting of ~~unreceived data~~ said sequential one of a plurality of packets if said time to transfer said ~~unreceived data~~ sequential one of a plurality of packets by point-to-point communication is greater than said time to broadcast said data.

3 (currently amended). The method of claim 2 wherein the step of estimating a time to transfer said ~~unreceived data~~ sequential one of a plurality of packets by point-to-point communication with said recipients comprises the steps of:

- (a) polling at least one recipient to identify non-receipt of said sequential one of a plurality of packets ~~for data unreceived~~ by said at least one recipient;
- (b) estimating a time to successfully transfer said ~~unreceived data~~ sequential one of a plurality of packets to said recipient by point to point communication; and
- (c) summing said estimated times to successfully transfer said ~~unreceived data~~ sequential one of a plurality of packets to recipients not reporting receipt of said unreceived data sequential one of a plurality of packets.

4 (currently amended). The data transfer method of claim 1 wherein the step of repeating said broadcasting ~~broadcast~~ of said ~~unreceived data~~ sequential one of a plurality of packets until a time for transferring said ~~unreceived data~~ sequential one of a plurality of packets by point-to-

point communication with said recipients obtains a predetermined relationship to a time for said broadcasting comprises the steps of:

- (a) estimating a time to transfer unreceived instances of said ~~unreceived said data~~ sequential one of a plurality of packets by point-to-point communication with said recipients,
- (b) estimating a count of unreceived instances of said ~~remaining unreceived data~~ sequential one of a plurality of packets following an additional broadcast ~~of said data~~; and
- (c) rebroadcasting said ~~unreceived data~~ sequential one of a plurality of packets if said time to transfer said ~~unreceived data~~ unreceived instances of said sequential one of a plurality of packets by point-to-point communication with said recipients is greater than a sum of said time to broadcast said ~~data~~ sequential one of a plurality of packets and a time to transfer said ~~remaining~~ estimated count of said unreceived data sequential one of a plurality of packets by point-to-point communication.

5 (previously presented). The method of claim 4 wherein the step of estimating a time to transfer said ~~unreceived data~~ sequential one of a plurality of packets by point-to-point communication with said recipients comprises the steps of:

- (a) polling at least one recipient to identify unreceived data for said recipient;
- (b) estimating a time to successfully transfer said unreceived data to said recipient by point to point communication; and
- (c) summing said estimated times to successfully transfer said unreceived data to recipients reporting unreceived data.

6-24 (canceled).

25(new). A method of transferring data from a distributor to a plurality of recipients comprising the steps of:

- (a) broadcasting a sequential one of a plurality of packets together comprising data to be transferred to said plurality of recipients at a time when each said plurality of recipients is capable of receiving said data by point-to-point communication;
- (b) repeating step (a), wherein each successive iteration of repeating step (a) is preceded by the steps of:
 - (i) receiving a value from at least one designated representative recipient, each representing at least one other non-representative recipient, said value indicating whether said sequential one of said plurality of packets has been received;
 - (ii) not repeating step (a) when all of said at least one designated representative has acknowledged receipt of said packet; and
 - (iii) otherwise repeating step (a); and
- (c) repeating steps (a) and (b) until a time for the completion of transferring said data by point-to-point communication with said recipients obtains a predetermined relationship to a time for the completion of transferring said data by said broadcasting.

26 (new). The method of claim 25 wherein the step of repeating said broadcasting until a time for transferring said data by point-to-point communication with said recipients obtains a predetermined relationship to a time for said broadcasting, comprises the steps of:

- (a) estimating a time to transfer said data by point-to-point communication with said recipients, and
- (b) repeating said broadcasting of said sequential one of a plurality of packets if said time to transfer said data by point-to-point communication is greater than said time to broadcast said data.

27 (new). The method of claim 26 wherein the step of estimating a time to transfer said data by point-to-point communication with said recipients comprises the steps of:

- (a) polling at least one recipient to identify non-receipt of said sequential one of a plurality of packets by said at least one recipient;
- (b) for each respective one of said plurality of recipients, estimating a time to successfully transfer by point to point communication those packets of said data not yet received by said respective one of each of said plurality of recipients; and
- (c) summing said estimated times to successfully transfer said packets of data not yet received.

28 (new). The data transfer method of claim 25 wherein the step of repeating said broadcasting until a time for transferring said data by point-to-point communication with said recipients obtains a predetermined relationship to a time for said broadcasting, comprises the steps of:

- (a) estimating a time to transfer packets of said data by point-to-point communication respectively not received by each of said recipients,
- (b) estimating packets of data not received following a rebroadcast of said sequential one of a plurality of packets; and
- (c) rebroadcasting said sequential one of a plurality of packets if said time to complete transfer of said packets not received by point-to-point communication with said recipients is greater than a sum of said time to rebroadcast said sequential one of a plurality of packets and a time to transfer said estimated packets of data not received following said rebroadcast by point-to-point communication.

29 (new). The method of claim 28 wherein the step of estimating a time to transfer said data by point-to-point communication with said recipients comprises the steps of:

- (a) polling at least one recipient to identify non-receipt of said sequential one of a plurality of packets by said at least one recipient;
- (b) for each respective one of said plurality of recipients, estimating a time to successfully transfer by point to point communication those packets of said data not yet received by said respective one of each of said plurality of recipients; and
- (c) summing said estimated times to successfully transfer said packets of data not yet received.

30(new). A method of transferring data from a distributor to a plurality of recipients comprising the steps of:

- (a) broadcasting a sequential one of a first plurality of packets, said first plurality of packets together comprising data to be transferred to said plurality of recipients at a time when each said plurality of recipients is capable of receiving said data by point-to-point communication;
- (b) receiving and storing a first value from a designated representative recipient of all of said plurality of recipients, said value indicating whether said sequential one of said first plurality of packets has been received;
- (c) repeating steps (a) and (b) for all of said sequential ones of said plurality of packets;
- (d) broadcasting a sequential one of a sequentially next plurality of packets not yet received by said designated representative recipient;
- (e) receiving and storing a sequentially next value from said designated representative recipient indicating whether said designated representative recipient has received said sequential one of said sequentially next plurality of packets; and

(f) iteratively repeating steps (d) and (e) until a time for the completion of transferring unreceived ones of said plurality of packets by point-to-point communication with said recipients obtains a predetermined relationship to a time for the completion of said plurality of packets by said broadcasting.

31 (new). The method of claim 30 wherein the step of iteratively repeating steps (d) and (e) comprises the steps of:

- (a) estimating a time to transfer by point-to-point communication with said recipients ones of said plurality of packets indicated by said value as not received by said representative recipient, and
- (b) repeating said broadcasting of only said ones of said plurality of packets indicated as not received if said time to transfer said ones of said plurality of packets indicated as not received by point-to-point communication is greater than said time to repeat said broadcasting.

32 (new). The method of claim 31 wherein the step of estimating a time to transfer said data by point-to-point communication with said recipients comprises the steps of:

- (a) polling at least one recipient to identify non-received ones of said plurality of packets by each of said at least one recipient;
- (b) for each respective one of said plurality of recipients, estimating a time to successfully transfer by point to point communication those packets of said data not yet received by said respective one of each of said plurality of recipients; and
- (c) summing said estimated times to successfully transfer said packets of data not yet received.

33 (new). The data transfer method of claim 30 wherein the step of iteratively repeating steps (d) and (e) comprises the steps of:

- (a) estimating a time to transfer only those packets of said data respectively not received by each of said recipients by point-to-point communication,
- (b) estimating remaining packets of data not received following a rebroadcast of said ones of said plurality of packets indicated by said value as not received by said representative recipient; and
- (c) rebroadcasting said ones of said plurality of packets indicated by said value as not received by said representative recipient if said time to complete transfer by point-to-point communication with said recipients of only those packets of said data respectively not received by each of said recipients is greater than a sum of said time to rebroadcast ones of said plurality of packets indicated by said value as not received by said representative recipient and a time to transfer said estimated remaining packets of data not received following a rebroadcast of said ones of said plurality of packets indicated by said value as not received by said representative recipient.

34 (new). The method of claim 33 wherein the step of estimating a time to transfer said data by point-to-point communication with said recipients comprises the steps of:

- (a) polling at least one recipient to identify non-received ones of said plurality of packets by each of said at least one recipient;
- (b) for each respective one of said plurality of recipients, estimating a time to successfully transfer by point to point communication those packets of said data not yet received by said respective one of each of said plurality of recipients; and
- (c) summing said estimated times to successfully transfer said packets of data not yet received.